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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/064,428

07/12/2002

Nigel Dennis Griffin

78-1151

2480

26932

7590

12/13/2004

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EXAMINER

JENKINS, DANIEL J

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/064,428

Applicant(s)

GRIFFIN, NIGEL DENNIS

Examiner

Daniel J. Jenkins

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 18-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. The Examiner has carefully considered Applicant's Response of 8/18/04. The Examiner finds that Applicant's amendment overcomes the rejection of 6/22/04. The Examiner makes a new rejection at this time.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-9 and 18-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Butcher et al.

Butcher et al. discloses a method of making a cutter (see figure 5 and accompanying discussion) comprising :

providing a first tungsten carbide substrate (40);

providing a second tungsten substrate (38);

providing a polycrystalline/catalyst component (32); and

bonding the first and second substrate to the polycrystalline/catalyst component under high temperature and pressure (col. 4, lines 44-47 and col. 6, lines 12-16).

Butcher et al. discloses at col. 4, lines 60-65 wherein the carbide is tungsten carbide.

Butcher et al. further discloses wherein the catalyst comprises cobalt.

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Butcher et al. further discloses wherein the cutter is engaged on a third substrate (36).

Butcher et al. further discloses wherein the first substrate is in annular form.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Butcher et al. in view of Nguyen et al.

Butcher et al. discloses the invention substantially as claimed (see paragraph 3 above).

However, Butcher et al. does not disclose wherein at least some of the PCD is located between the substrates.

Nguyen et al. teaches to form cutters of multiple layers of PCD wherein at least some the PCD is located between the substrate layers in the same field of endeavor for the purpose of providing a cutter with increased cutter life (col. 1, lines 33-40).

It would have been obvious to one having ordinary skill in the art to form the cutter of Butcher et al. with multiple PCD layers as taught by Nbuyen et al. in order to form a cutter with increased cutter life.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Butcher et al. in view of Fielder.

Butcher et al. discloses the invention substantially as claimed (see paragraph 3 above).

However, Butcher et al. do not disclose wherein the first substrate is grooved.

Fielder teaches that it is known in the art to groove a surface of a substrate cutter in the same field of endeavor for the purpose of improving the bonding between a substrate and a diamond/binder component.

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It would have been obvious to one having ordinary skill in the art at the time of the invention to groove the substrate (38) in the invention of Butcher et al. in order to improve the bond to the diamond/binder component.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 571-272-1242. The examiner can normally be reached on M-TH6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1242. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel J. Jenkins  
Primary Examiner  
Art Unit 1742

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